

SEQUENCE LISTING

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<120> INTERFERON-ALPHA INDUCED GENE

<130> 046658/298641

<160> 2

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<210> 1

<211> 6045

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> (243)...(5381)

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cggtcctgag tccgcggact gccattttca ttaagaactg ccacttagag gtacccaaat 180
aaagggtatt tgctacctt aatacttgcc agttcaggtt ggaggcacag gcagcagcaa 240

ga atg gaa aga aat gtt ctt aca aca ttt tca cag gaa atg tcc cag 287
Met Glu Arg Asn Val Leu Thr Thr Phe Ser Gln Glu Met Ser Gln
1 5 10 15

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Leu Ile Leu Asn Glu Met Pro Lys Ala Glu Tyr Ser Ser Leu Phe Asn
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Ile Thr Cys Ile Cys Glu Ile Ser Phe Lys Pro Gly Gln Asn Leu His
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Phe Phe Tyr Leu Val Glu Arg Tyr Leu Val Asp Leu Ile Ser Lys Gly
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Gly Gln Phe Thr Ile Val Phe Phe Lys Asp Ala Glu Tyr Ala Tyr Phe

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Asn Phe Pro Glu Leu Leu Ser Leu Arg Thr Ala Leu Ile Leu His Leu				
100	105	110		
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Gln Lys Asn Thr Thr Ile Asp Val Arg Thr Phe Ser Arg Cys Leu				
115	120	125		
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Ser Lys Glu Trp Gly Ser Phe Leu Glu Ser Tyr Pro Tyr Phe Leu				
130	135	140		
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145	150	155		
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Phe Leu Ile Ile His Ser Trp Ala Arg Lys Val Asn Val Val Leu Ser				
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Ser Gly Gln Glu Ser Asp Val Leu Cys Leu Tyr Ala Tyr Leu Leu Pro				
180	185	190		
agc atg tac aga cac cag att ttt tcc tgg aag aat aag cag aac att				863
Ser Met Tyr Arg His Gln Ile Phe Ser Trp Lys Asn Lys Gln Asn Ile				
195	200	205		
aaa gat gct tat aca acc ctg ctt aac cag ttg gaa aga ttt aag ctt				911
Lys Asp Ala Tyr Thr Leu Leu Asn Gln Leu Glu Arg Phe Lys Leu				
210	215	220		
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Ser Ala Leu Ala Pro Leu Phe Gly Ser Leu Lys Trp Asn Asn Ile Thr				
225	230	235		
gaa gag gca cac aag act gta tct ctg ctt aca caa gtc tgg cca gaa				1007
Glu Glu Ala His Lys Thr Val Ser Leu Leu Thr Gln Val Trp Pro Glu				
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Gly Ser Asp Ile Arg Arg Val Phe Cys Val Thr Ser Cys Ser Leu Ser				
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Leu Arg Met Tyr His Arg Phe Leu Gly Asn Arg Glu Pro Ser Ser Gly				
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Gln Glu Thr Glu Ile Gln Gln Val Asn Ser Asn Cys Leu Thr Leu Gln				
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Glu Met Glu Asp Leu Cys Lys Leu His Cys Leu Thr Val Val Phe Leu				
305	310	315		
ctc cat ctg cct ctt tct caa aga gct tgt gct aga gtc atc act tcc				1247

Leu His Leu Pro Leu Ser Gln Arg Ala Cys Ala Arg Val Ile Thr Ser			
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cat tgg gct gag gac atg aag cct tta tta caa atg aaa aag tgg tgt			1295
His Trp Ala Glu Asp Met Lys Pro Leu Leu Gln Met Lys Lys Trp Cys			
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Glu Tyr Phe Ile Leu Arg Asn Ile His Thr Phe Glu Phe Trp Asn Leu			
355	360	365	
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Asn Leu Ile His Leu Ser Asp Leu Asn Asp Glu Leu Leu Leu Lys Asn			
370	375	380	
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Ile Ala Phe Tyr Tyr Glu Asn Glu Asn Val Lys Gly Leu His Leu Asn			
385	390	395	
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Leu Gly Asp Thr Ile Met Lys Asp Tyr Glu Tyr Leu Trp Asn Thr Val			
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tca aag ttg gtc aga gac ttt gag gtt gga cag cca ttt cct ctg aga			1535
Ser Lys Leu Val Arg Asp Phe Glu Val Gly Gln Pro Phe Pro Leu Arg			
420	425	430	
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Thr Thr Lys Val Cys Phe Leu Gly Lys Lys Pro Ser Pro Ile Lys Asp			
435	440	445	
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Ser Ser Asn Glu Met Val Pro Asn Leu Gly Phe Ile Pro Thr Ser Ser			
450	455	460	
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Phe Val Val Asp Lys Phe Ala Gly Asp Ile Leu Lys Asp Leu Pro Phe			
465	470	475	
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Leu Lys Ser Asp Asp Pro Ile Val Thr Ser Leu Val Lys Gln Lys Glu			
480	485	490	495
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Phe Asp Glu Leu Val His Trp His Ser His Lys Pro Leu Ser Asp Asp			
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Tyr Asp Arg Ser Arg Cys Gln Phe Asp Glu Lys Ser Arg Asp Pro Arg			
515	520	525	
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Val Leu Arg Ser Val Gln Lys Tyr His Val Phe Gln Arg Phe Tyr Gly			
530	535	540	
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Asn Ser Leu Glu Thr Val Ser Ser Lys Ile Ile Val Thr Gln Thr Ile			
545	550	555	
aag tca aag aag gat ttt agt ggg ccc aag agc aaa aag gca cac gag			1967
Lys Ser Lys Lys Asp Phe Ser Gly Pro Lys Ser Lys Lys Ala His Glu			
560	565	570	575
acc aag gct gaa ata att gct aga gag aat aag aaa agg tta ttt gcc			2015
Thr Lys Ala Glu Ile Ile Ala Arg Glu Asn Lys Lys Arg Leu Phe Ala			
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Arg Glu Glu Gln Lys Glu Glu Gln Lys Trp Asn Ala Leu Ser Phe Ser			
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Ile Glu Glu Gln Leu Lys Glu Asn Leu His Ser Gly Ile Lys Ser Leu			
610	615	620	
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Glu Asp Phe Leu Lys Ser Cys Lys Ser Ser Cys Val Lys Leu Gln Val			
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Glu Met Val Gly Leu Thr Ala Cys Leu Lys Ala Trp Lys Glu His Cys			
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Val Met Lys Arg Ile His Ser Leu Met Glu Lys Tyr Ser Glu Leu Leu			
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Phe Asp Glu Leu Ala Ser Ser Leu His Pro Ala Gln Asp Ala Glu Asn			
705	710	715	
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Asp Val Lys Val Lys Lys Arg Asn Lys Tyr Ser Ile Gly Ile Gly Pro			
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Ala Arg Phe Gln Leu Gln Tyr Met Gly His Tyr Leu Ile Arg Asp Glu			
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Arg Lys Asp Pro Asp Pro Arg Val Gln Asp Phe Ile Pro Asp Thr Trp			
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ctt gtg ctc tat gga gag agg tat aat gat cta gag aag cat gta tgt Leu Val Leu Tyr Gly Glu Arg Tyr Asn Asp Leu Glu Lys His Val Cys 980 985 990	3215
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Ala	Leu	Thr	Thr	Asp	His	Ile	Glu	Arg	Tyr	Gly	Phe	Pro	Pro	Asp	
1010							1015					1020			
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Leu	Thr	Leu	Ser	Pro	Arg	Glu	Ser	Ile	Gln	Leu	Tyr	Asp	Ala	Met	
1025							1030					1035			
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Phe	Gln	Ile	Trp	Lys	Ser	Trp	Pro	Arg	Ala	Gln	Glu	Leu	Cys	Pro	
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Glu	Asn	Phe	Ile	His	Phe	Asn	Asn	Lys	Leu	Val	Ile	Lys	Lys	Met	
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Asp	Ala	Arg	Lys	Tyr	Glu	Glu	Ser	Leu	Lys	Ala	Glu	Leu	Thr	Ser	
1070							1075					1080			
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Trp	Ile	Lys	Asn	Gly	Asn	Val	Glu	Gln	Ala	Arg	Met	Val	Leu	Gln	
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Asn	Leu	Ser	Pro	Glu	Ala	Asp	Leu	Ser	Pro	Glu	Asn	Met	Ile	Thr	
1100							1105					1110			
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Met	Phe	Pro	Leu	Leu	Val	Glu	Lys	Leu	Arg	Lys	Met	Glu	Lys	Leu	
1115							1120					1125			
cct	gca	cta	ttt	ttt	tta	tcc	aag	tta	gga	gct	gta	gaa	aac	gca	3668
Pro	Ala	Leu	Phe	Phe	Leu	Phe	Lys	Leu	Gly	Ala	Val	Glu	Asn	Ala	
1130							1135					1140			
gct	gaa	agt	gtg	agc	act	ttc	cta	aag	aaa	aag	cag	gag	aca	aaa	3713
Ala	Glu	Ser	Val	Ser	Thr	Phe	Leu	Lys	Lys	Lys	Gln	Glu	Thr	Lys	
1145							1150					1155			
agg	cct	ccc	aaa	gct	gat	aaa	gaa	gcc	cat	gtc	atg	gct	aac	aaa	3758
Arg	Pro	Pro	Lys	Ala	Asp	Lys	Glu	Ala	His	Val	Met	Ala	Asn	Lys	
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Leu	Arg	Lys	Val	Lys	Lys	Ser	Ile	Glu	Lys	Gln	Lys	Ile	Ile	Asp	
1175							1180					1185			
gaa	aag	agc	cag	aaa	aaa	acc	aga	aat	gtg	gat	caa	agc	cta	ata	3848
Glu	Lys	Ser	Gln	Lys	Lys	Thr	Arg	Asn	Val	Asp	Gln	Ser	Leu	Ile	
1190							1195					1200			
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His	Glu	Ala	Glu	His	Asp	Asn	Leu	Val	Lys	Cys	Leu	Glu	Lys	Asn	
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ctg	gaa	atc	cca	cag	gac	tgc	aca	tat	gct	gat	caa	aaa	gca	gtg	3938
Leu	Glu	Ile	Pro	Gln	Asp	Cys	Thr	Tyr	Ala	Asp	Gln	Lys	Ala	Val	
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Asp Thr Glu	Thr Leu Gln Lys Val	Phe Gly Arg Val Lys	Phe Glu	
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aga aaa ggt	gaa gaa ttg aaa gcc	ttg gca gaa agg ggt	att gga	4028
Arg Lys Gly	Glu Glu Leu Lys Ala	Leu Ala Glu Arg Gly	Ile Gly	
1250	1255	1260		
tat cat cac	agt gct atg agt ttc	aaa gaa aaa caa tta	gtt gaa	4073
Tyr His His	Ser Ala Met Ser Phe	Lys Glu Lys Gln Leu	Val Glu	
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atc ctc ttt	aga aaa gga tat ctt	agg gtg gtg aca gct	act gga	4118
Ile Leu Phe	Arg Lys Gly Tyr Leu	Arg Val Val Thr Ala	Thr Gly	
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aca ctt gct	tta ggt gtc aac atg	cct tgt aaa tct gtg	gtt ttt	4163
Thr Leu Ala	Leu Gly Val Asn Met	Pro Cys Lys Ser Val	Val Phe	
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Ala Gln Asn	Ser Val Tyr Leu Asp	Ala Leu Asn Tyr Arg	Gln Met	
1310	1315	1320		
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Ser Gly Arg	Ala Gly Arg Arg Gly	Gln Asp Leu Met Gly	Asp Val	
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Tyr Phe Phe	Asp Ile Pro Phe Pro	Lys Ile Gly Lys Leu	Ile Lys	
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Ser Asn Val	Pro Glu Leu Arg Gly	His Phe Pro Leu Ser	Ile Thr	
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Leu Val Leu	Arg Leu Met Leu Leu	Ala Ser Lys Gly Asp	Asp Pro	
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Glu Asp Thr	Lys Ala Lys Val Leu	Ser Val Leu Lys His	Ser Leu	
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Leu Ser Phe	Lys Gln Pro Arg Val	Met Asp Met Leu Lys	Leu Tyr	
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Phe Leu Phe	Ser Leu Gln Phe Leu	Val Lys Glu Gly Tyr	Leu Asp	
1415	1420	1425		
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Gln Glu Gly	Asn Pro Met Gly Phe	Ala Gly Leu Val Ser	His Leu	
1430	1435	1440		

cat tat cat gaa cct tct aat ctt gtt ttt gtc agt ttt ctt gta	4613
His Tyr His Glu Pro Ser Asn Leu Val Phe Val Ser Phe Leu Val	
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Asn Gly Leu Phe His Asp Leu Cys Gln Pro Thr Arg Lys Gly Ser	
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aaa cat ttt tctcaa gac gtt atg gaa aag cta gta tta gta ttg	4703
Lys His Phe Ser Gln Asp Val Met Glu Lys Leu Val Leu Val Leu	
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gca cat ctc ttt gga aga aga tat ttt cca cca aag ttc caa gat	4748
Ala His Leu Phe Gly Arg Arg Tyr Phe Pro Pro Lys Phe Gln Asp	
1490 1495 1500	
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Ala His Phe Glu Phe Tyr Gln Ser Lys Val Phe Leu Asp Asp Leu	
1505 1510 1515	
cct gag gat ttt agt gat gct tta gat gaa tat aac atg aaa att	4838
Pro Glu Asp Phe Ser Asp Ala Leu Asp Glu Tyr Asn Met Lys Ile	
1520 1525 1530	
atg gag gac ttt acc act ttc cta cga att gtt tcc aaa ctg gct	4883
Met Glu Asp Phe Thr Thr Phe Leu Arg Ile Val Ser Lys Leu Ala	
1535 1540 1545	
gat atg aat cag gaa tat caa ctc cca ttg tca aaa atc aaa ttc	4928
Asp Met Asn Gln Glu Tyr Gln Leu Pro Leu Ser Lys Ile Lys Phe	
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Thr Gly Lys Glu Cys Glu Asp Ser Gln Leu Val Ser His Leu Met	
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Ser Cys Lys Glu Gly Arg Val Ala Ile Ser Pro Phe Val Cys Leu	
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tct ggg aac ttt gat gat gat ttg ctt cga cta gaa act cca aac	5063
Ser Gly Asn Phe Asp Asp Asp Leu Leu Arg Leu Glu Thr Pro Asn	
1595 1600 1605	
cat gtt act cta ggc aca atc ggt gtc aat cgc tct cag gct cca	5108
His Val Thr Leu Gly Thr Ile Gly Val Asn Arg Ser Gln Ala Pro	
1610 1615 1620	
gtg ctg ttg tca cag aaa ttt gat aac cga gga agg aaa atg tcg	5153
Val Leu Leu Ser Gln Lys Phe Asp Asn Arg Gly Arg Lys Met Ser	
1625 1630 1635	
ctt aat gcc tat gca ctg gat ttc tac aaa cat ggt tcc ttg ata	5198
Leu Asn Ala Tyr Ala Leu Asp Phe Tyr Lys His Gly Ser Leu Ile	
1640 1645 1650	
gga tta gtc cag gat aac agg atg aat gaa gga gat gct tat tat	5243

Gly	Leu	Val	Gln	Asp	Asn	Arg	Met	Asn	Glu	Gly	Asp	Ala	Tyr	Tyr	
1655								1660					1665		
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Leu	Leu	Lys	Asp	Phe	Ala	Leu	Thr	Ile	Lys	Ser	Ile	Ser	Val	Ser	
1670								1675					1680		
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Leu	Arg	Glu	Leu	Cys	Glu	Asn	Glu	Asp	Asp	Asn	Val	Val	Leu	Ala	
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Phe	Glu	Gln	Leu	Ser	Thr	Thr	Phe	Trp	Glu	Lys	Leu	Asn	Lys	Val	
1700							1705						1710		
taa	aaacaaagtc	tatgcaaacc	acttaaaaat	aattccatag	tagttttca										5431
ggtcacgttt	ttgattctta	tgcttctgc	cagaaaataca	ttatgataaa	gtggaaatac										5491
attacgatga	agtggaaaga	gcaaacactt	tggaatcaaa	cagagttgca	atcaaaccctg										5551
ccatgttctg	tcatgaatac	tcacaaatta	tttagtatac	ctgaatcttg	gtttctttt										5611
ataactgagt	aataatggtt	acatctcagg	tagtttgagg	attgactaaa	aaaatgcgag										5671
aatgttgat	gtgactgaat	aacaattttt	actctgcgaa	gccaaagtaa	atataatatt										5731
atcagtaact	ttatccccag	tgtcagttt	tataaaatgt	ttattaaggc	tagaaaaaaat										5791
gaataacaata	tcctgaaggt	gaaatataatt	ctcttcaatt	agcataaata	tgatttacat										5851
aagttagcta	tacagctatt	gagatagttac	tttctagtaa	acttaaacta	ctttttaaac										5911
atacattttg	tgatgattta	acaaaaatat	agagaatgat	ttgctttatt	gtaattgtat										5971
ataagtgact	ggaaaagcac	aaagaaataa	agtgggttcg	atctgttaaa	taaaaaaaaaa										6031
aaaaaaaaaa	aaaa														6045

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<211> 1712
<212> PRT
<213> Homo sapiens

<400> 2

Met	Glu	Arg	Asn	Val	Leu	Thr	Thr	Phe	Ser	Gln	Glu	Met	Ser	Gln	Leu
1				5				10				15			

Ile	Leu	Asn	Glu	Met	Pro	Lys	Ala	Glu	Tyr	Ser	Ser	Leu	Phe	Asn	Asp
				20				25				30			

Phe	Val	Glu	Ser	Glu	Phe	Phe	Leu	Ile	Asp	Gly	Asp	Ser	Leu	Leu	Ile
				35			40				45				

Thr	Cys	Ile	Cys	Glu	Ile	Ser	Phe	Lys	Pro	Gly	Gln	Asn	Leu	His	Phe
				50			55				60				

Phe	Tyr	Leu	Val	Glu	Arg	Tyr	Leu	Val	Asp	Leu	Ile	Ser	Lys	Gly	Gly
				65			70			75			80		

Gln	Phe	Thr	Ile	Val	Phe	Phe	Lys	Asp	Ala	Glu	Tyr	Ala	Tyr	Phe	Asn
				85			90				95				

Phe Pro Glu Leu Leu Ser Leu Arg Thr Ala Leu Ile Leu His Leu Gln

100	105	110
Lys Asn Thr Thr Ile Asp Val Arg Thr Thr Phe Ser Arg Cys Leu Ser		
115	120	125
Lys Glu Trp Gly Ser Phe Leu Glu Glu Ser Tyr Pro Tyr Phe Leu Ile		
130	135	140
Val Ala Asp Glu Gly Leu Asn Asp Leu Gln Thr Gln Leu Phe Asn Phe		
145	150	155
Leu Ile Ile His Ser Trp Ala Arg Lys Val Asn Val Val Leu Ser Ser		
165	170	175
Gly Gln Glu Ser Asp Val Leu Cys Leu Tyr Ala Tyr Leu Leu Pro Ser		
180	185	190
Met Tyr Arg His Gln Ile Phe Ser Trp Lys Asn Lys Gln Asn Ile Lys		
195	200	205
Asp Ala Tyr Thr Thr Leu Leu Asn Gln Leu Glu Arg Phe Lys Leu Ser		
210	215	220
Ala Leu Ala Pro Leu Phe Gly Ser Leu Lys Trp Asn Asn Ile Thr Glu		
225	230	235
Glu Ala His Lys Thr Val Ser Leu Leu Thr Gln Val Trp Pro Glu Gly		
245	250	255
Ser Asp Ile Arg Arg Val Phe Cys Val Thr Ser Cys Ser Leu Ser Leu		
260	265	270
Arg Met Tyr His Arg Phe Leu Gly Asn Arg Glu Pro Ser Ser Gly Gln		
275	280	285
Glu Thr Glu Ile Gln Gln Val Asn Ser Asn Cys Leu Thr Leu Gln Glu		
290	295	300
Met Glu Asp Leu Cys Lys Leu His Cys Leu Thr Val Val Phe Leu Leu		
305	310	315
His Leu Pro Leu Ser Gln Arg Ala Cys Ala Arg Val Ile Thr Ser His		
325	330	335
Trp Ala Glu Asp Met Lys Pro Leu Leu Gln Met Lys Lys Trp Cys Glu		
340	345	350
Tyr Phe Ile Leu Arg Asn Ile His Thr Phe Glu Phe Trp Asn Leu Asn		
355	360	365
Leu Ile His Leu Ser Asp Leu Asn Asp Glu Leu Leu Lys Asn Ile		
370	375	380
Ala Phe Tyr Tyr Glu Asn Glu Asn Val Lys Gly Leu His Leu Asn Leu		
385	390	395
Gly Asp Thr Ile Met Lys Asp Tyr Glu Tyr Leu Trp Asn Thr Val Ser		

405	410	415
Lys Leu Val Arg Asp Phe Glu Val Gly Gln Pro Phe Pro Leu Arg Thr		
420	425	430
Thr Lys Val Cys Phe Leu Gly Lys Lys Pro Ser Pro Ile Lys Asp Ser		
435	440	445
Ser Asn Glu Met Val Pro Asn Leu Gly Phe Ile Pro Thr Ser Ser Phe		
450	455	460
Val Val Asp Lys Phe Ala Gly Asp Ile Leu Lys Asp Leu Pro Phe Leu		
465	470	475
Lys Ser Asp Asp Pro Ile Val Thr Ser Leu Val Lys Gln Lys Glu Phe		
485	490	495
Asp Glu Leu Val His Trp His Ser His Lys Pro Leu Ser Asp Asp Tyr		
500	505	510
Asp Arg Ser Arg Cys Gln Phe Asp Glu Lys Ser Arg Asp Pro Arg Val		
515	520	525
Leu Arg Ser Val Gln Lys Tyr His Val Phe Gln Arg Phe Tyr Gly Asn		
530	535	540
Ser Leu Glu Thr Val Ser Ser Lys Ile Ile Val Thr Gln Thr Ile Lys		
545	550	555
Ser Lys Lys Asp Phe Ser Gly Pro Lys Ser Lys Lys Ala His Glu Thr		
565	570	575
Lys Ala Glu Ile Ile Ala Arg Glu Asn Lys Lys Arg Leu Phe Ala Arg		
580	585	590
Glu Glu Gln Lys Glu Glu Gln Lys Trp Asn Ala Leu Ser Phe Ser Ile		
595	600	605
Glu Glu Gln Leu Lys Glu Asn Leu His Ser Gly Ile Lys Ser Leu Glu		
610	615	620
Asp Phe Leu Lys Ser Cys Lys Ser Ser Cys Val Lys Leu Gln Val Glu		
625	630	635
Met Val Gly Leu Thr Ala Cys Leu Lys Ala Trp Lys Glu His Cys Arg		
645	650	655
Ser Glu Glu Gly Lys Thr Thr Lys Asp Leu Ser Ile Ala Val Gln Val		
660	665	670
Met Lys Arg Ile His Ser Leu Met Glu Lys Tyr Ser Glu Leu Leu Gln		
675	680	685
Glu Asp Asp Arg Gln Leu Ile Ala Arg Cys Leu Lys Tyr Leu Gly Phe		
690	695	700
Asp Glu Leu Ala Ser Ser Leu His Pro Ala Gln Asp Ala Glu Asn Asp		

705	710	715	720
Val Lys Val Lys Lys Arg Asn Lys Tyr Ser Ile Gly Ile Gly Pro Ala			
725	730	735	
Arg Phe Gln Leu Gln Tyr Met Gly His Tyr Leu Ile Arg Asp Glu Arg			
740	745	750	
Lys Asp Pro Asp Pro Arg Val Gln Asp Phe Ile Pro Asp Thr Trp Gln			
755	760	765	
Arg Glu Leu Leu Asp Val Val Asp Lys Asn Glu Ser Ala Val Ile Val			
770	775	780	
Ala Pro Thr Ser Ser Gly Lys Thr Tyr Ala Ser Tyr Tyr Cys Met Glu			
785	790	795	800
Lys Val Leu Lys Glu Ser Asp Asp Gly Val Val Val Tyr Val Ala Pro			
805	810	815	
Thr Lys Ala Leu Val Asn Gln Val Ala Ala Thr Val Gln Asn Arg Phe			
820	825	830	
Thr Lys Asn Leu Pro Ser Gly Glu Val Leu Cys Gly Val Phe Thr Arg			
835	840	845	
Glu Tyr Arg His Asp Ala Leu Asn Cys Gln Val Leu Ile Thr Val Pro			
850	855	860	
Ala Cys Phe Glu Ile Leu Leu Leu Ala Pro His Arg Gln Asn Trp Val			
865	870	875	880
Lys Lys Ile Arg Tyr Val Ile Phe Asp Glu Val His Cys Leu Gly Gly			
885	890	895	
Glu Ile Gly Ala Glu Ile Trp Glu His Leu Leu Val Met Ile Arg Cys			
900	905	910	
Pro Phe Leu Ala Leu Ser Ala Thr Ile Ser Asn Pro Glu His Leu Thr			
915	920	925	
Glu Trp Leu Gln Ser Val Lys Trp Tyr Trp Lys Gln Glu Asp Lys Ile			
930	935	940	
Ile Glu Asn Asn Thr Ala Ser Lys Arg His Val Gly Arg Gln Ala Gly			
945	950	955	960
Phe Pro Lys Asp Tyr Leu Gln Val Lys Gln Ser Tyr Lys Val Arg Leu			
965	970	975	
Val Leu Tyr Gly Glu Arg Tyr Asn Asp Leu Glu Lys His Val Cys Ser			
980	985	990	
Ile Lys His Gly Asp Ile His Phe Asp His Phe His Pro Cys Ala Ala			
995	1000	1005	

Leu Thr Thr Asp His Ile Glu Arg Tyr Gly Phe Pro Pro Asp Leu
 1010 1015 1020
 Thr Leu Ser Pro Arg Glu Ser Ile Gln Leu Tyr Asp Ala Met Phe
 1025 1030 1035
 Gln Ile Trp Lys Ser Trp Pro Arg Ala Gln Glu Leu Cys Pro Glu
 1040 1045 1050
 Asn Phe Ile His Phe Asn Asn Lys Leu Val Ile Lys Lys Met Asp
 1055 1060 1065
 Ala Arg Lys Tyr Glu Glu Ser Leu Lys Ala Glu Leu Thr Ser Trp
 1070 1075 1080
 Ile Lys Asn Gly Asn Val Glu Gln Ala Arg Met Val Leu Gln Asn
 1085 1090 1095
 Leu Ser Pro Glu Ala Asp Leu Ser Pro Glu Asn Met Ile Thr Met
 1100 1105 1110
 Phe Pro Leu Leu Val Glu Lys Leu Arg Lys Met Glu Lys Leu Pro
 1115 1120 1125
 Ala Leu Phe Phe Leu Phe Lys Leu Gly Ala Val Glu Asn Ala Ala
 1130 1135 1140
 Glu Ser Val Ser Thr Phe Leu Lys Lys Lys Gln Glu Thr Lys Arg
 1145 1150 1155
 Pro Pro Lys Ala Asp Lys Glu Ala His Val Met Ala Asn Lys Leu
 1160 1165 1170
 Arg Lys Val Lys Lys Ser Ile Glu Lys Gln Lys Ile Ile Asp Glu
 1175 1180 1185
 Lys Ser Gln Lys Lys Thr Arg Asn Val Asp Gln Ser Leu Ile His
 1190 1195 1200
 Glu Ala Glu His Asp Asn Leu Val Lys Cys Leu Glu Lys Asn Leu
 1205 1210 1215
 Glu Ile Pro Gln Asp Cys Thr Tyr Ala Asp Gln Lys Ala Val Asp
 1220 1225 1230
 Thr Glu Thr Leu Gln Lys Val Phe Gly Arg Val Lys Phe Glu Arg
 1235 1240 1245
 Lys Gly Glu Glu Leu Lys Ala Leu Ala Glu Arg Gly Ile Gly Tyr
 1250 1255 1260
 His His Ser Ala Met Ser Phe Lys Glu Lys Gln Leu Val Glu Ile
 1265 1270 1275
 Leu Phe Arg Lys Gly Tyr Leu Arg Val Val Thr Ala Thr Gly Thr
 1280 1285 1290

Leu Ala Leu Gly Val Asn Met Pro Cys Lys Ser Val Val Phe Ala
 1295 1300 1305
 Gln Asn Ser Val Tyr Leu Asp Ala Leu Asn Tyr Arg Gln Met Ser
 1310 1315 1320
 Gly Arg Ala Gly Arg Arg Gly Gln Asp Leu Met Gly Asp Val Tyr
 1325 1330 1335
 Phe Phe Asp Ile Pro Phe Pro Lys Ile Gly Lys Leu Ile Lys Ser
 1340 1345 1350
 Asn Val Pro Glu Leu Arg Gly His Phe Pro Leu Ser Ile Thr Leu
 1355 1360 1365
 Val Leu Arg Leu Met Leu Leu Ala Ser Lys Gly Asp Asp Pro Glu
 1370 1375 1380
 Asp Thr Lys Ala Lys Val Leu Ser Val Leu Lys His Ser Leu Leu
 1385 1390 1395
 Ser Phe Lys Gln Pro Arg Val Met Asp Met Leu Lys Leu Tyr Phe
 1400 1405 1410
 Leu Phe Ser Leu Gln Phe Leu Val Lys Glu Gly Tyr Leu Asp Gln
 1415 1420 1425
 Glu Gly Asn Pro Met Gly Phe Ala Gly Leu Val Ser His Leu His
 1430 1435 1440
 Tyr His Glu Pro Ser Asn Leu Val Phe Val Ser Phe Leu Val Asn
 1445 1450 1455
 Gly Leu Phe His Asp Leu Cys Gln Pro Thr Arg Lys Gly Ser Lys
 1460 1465 1470
 His Phe Ser Gln Asp Val Met Glu Lys Leu Val Leu Val Leu Ala
 1475 1480 1485
 His Leu Phe Gly Arg Arg Tyr Phe Pro Pro Lys Phe Gln Asp Ala
 1490 1495 1500
 His Phe Glu Phe Tyr Gln Ser Lys Val Phe Leu Asp Asp Leu Pro
 1505 1510 1515
 Glu Asp Phe Ser Asp Ala Leu Asp Glu Tyr Asn Met Lys Ile Met
 1520 1525 1530
 Glu Asp Phe Thr Thr Phe Leu Arg Ile Val Ser Lys Leu Ala Asp
 1535 1540 1545
 Met Asn Gln Glu Tyr Gln Leu Pro Leu Ser Lys Ile Lys Phe Thr
 1550 1555 1560
 Gly Lys Glu Cys Glu Asp Ser Gln Leu Val Ser His Leu Met Ser
 1565 1570 1575

Cys Lys Glu Gly Arg Val Ala Ile Ser Pro Phe Val Cys Leu Ser
1580 1585 1590

Gly Asn Phe Asp Asp Asp Leu Leu Arg Leu Glu Thr Pro Asn His
1595 1600 1605

Val Thr Leu Gly Thr Ile Gly Val Asn Arg Ser Gln Ala Pro Val
1610 1615 1620

Leu Leu Ser Gln Lys Phe Asp Asn Arg Gly Arg Lys Met Ser Leu
1625 1630 1635

Asn Ala Tyr Ala Leu Asp Phe Tyr Lys His Gly Ser Leu Ile Gly
1640 1645 1650

Leu Val Gln Asp Asn Arg Met Asn Glu Gly Asp Ala Tyr Tyr Leu
1655 1660 1665

Leu Lys Asp Phe Ala Leu Thr Ile Lys Ser Ile Ser Val Ser Leu
1670 1675 1680

Arg Glu Leu Cys Glu Asn Glu Asp Asp Asn Val Val Leu Ala Phe
1685 1690 1695

Glu Gln Leu Ser Thr Thr Phe Trp Glu Lys Leu Asn Lys Val
1700 1705 1710